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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,614	08/05/2005	Joerg Issberner	262338US0PCT	8527
22850 7590 02/08/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BERNSHTEYN, MICHAEL	
			ART UNIT 1713	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/517,614	ISSBERNER ET AL.	
	Examiner	Art Unit	
	Michael Bernshteyn	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/11/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office Action follows a response filed on December 11, 2006. Claims 1 and 3 have been amended; no claims have been cancelled or added.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 11, 2006 has been entered.
3. Applicant's arguments with respect to claims 1 –24 have been considered but are moot in view of the new ground(s) of rejection.
4. Claims 1-24 are pending.

### ***Claim Rejections - 35 USC § 102***

5. The text of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.

### ***Claim Rejections - 35 USC § 103***

6. The text of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.
7. Claims 1-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Krutko et al. (SU 1435580 A).

With regard to the limitations of claims 1-4 and 7-10, Krutko discloses that the reagents are mixed in the following sequence: methacrylic acid, terpene hydrocarbon, sulphuric acid and an additional solution of the final product. Methacrylic acid purified by distillation in vacuum is used as the reactant. The terpenes are the following:  $\alpha$ -pinene,  $\beta$ -pinene and  $\delta^3$ -carene, which are obtained by rectification of turpentine and purified by the distillation prior to use in the reaction. Krutko also discloses a process of heating methacrylic acid and terpenes in weight ration 3-4:1 in the presence of the final production product in the amount of 0.01-0.05 wt.%, as well as sulphuric acid and water (abstract).

Krutko discloses that the final copolymer is colorless and free of darkness, which is according "The Random House College Dictionary", page 250 (contains the description of the word "clear") equivalent to the word "clear". Additionally, this copolymer is water-soluble (col. 1, line 43).

Regarding the water-soluble copolymer limitations in view of substantially identical polymerized monomers in the aqueous phase and their proportion ranges, (SU'580, col. 1, lines 16-43, Table 2) being used by both Kruto and the applicant, it is the examiner position to believe that the product, i.e. water-soluble copolymer of Krutko, being colorless, water-soluble and free of darkness is substantially identical to the instantly claimed clear, water-soluble copolymer recited in claim 1, even though obtained by a different process, consult *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Since the USPTO does not have proper equipment to do the analytical test, the burden is now shifted to the applicant to prove otherwise.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

With regard to the limitations of claims 5-6 and 11-12, Krutko does not disclose the proportion of neutralization of the acid groups in the monomer and a weight-average molecular weight of the copolymer.

In the absence of criticality in the specification of maintaining the definite level of the neutralization of the acid groups in the monomer and a weight-average molecular weight of the copolymer, it is noted that the proportion of neutralization of the acid groups in the monomer and a weight-average molecular weight of the copolymer are result effective variables, and therefore, it is within the skill of those skilled in the art to find the optimum value of a result effective variable, as per *In re Boesch and Slaney* 205 USPQ 215 (CCPA 1980). See also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382: "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."

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8. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Werres et al. (WO 95/15296).

Werres discloses the use of **oil-in-water emulsion** to prevent slime formation and inhibit the proliferation of microbes in water carrying system. The emulsion contains at least one of the following active substances as a component of the oil-phase: 1) a saturated or unsaturated, open-chain or cyclic, normal or isomeric hydrocarbon; 2) a saturated or unsaturated fatty alcohol, a saturated or unsaturated fatty acid, a fatty acid monoalkyl ester, etc.; 3) a mono- or polyester of a saturated or unsaturated fatty acid and/or polyalcohols except polyethylene alcohol; 4) a polyamide of saturated or unsaturated fatty acids; 5) an acyclic, preferably monocyclic and/or bicyclic terpene, such as a **terpene hydrocarbon** and/or terpene alcohol; and/or 6) a polyalkyl compound based on alkylene oxide and fatty alcohols, fatty acids and/or fatty acid glycerides of fatty acids. The proportion of oil phase in these emulsions is between 1 and 90 wt.%. The emulsions are used in concentrations of **1 to 200 ppm** (abstract).

With regard to the limitations of claim 1, Werres does not disclose that the final product is a clear, water-soluble copolymer.

However, it is the examiner position to believe that the copolymer obtained by radical polymerization of exactly the same polymerized monomers would be substantially identical to the instant claimed clear, water-soluble copolymer.

Since the USPTO does not have equipment to do the analytical test, the burden is now shifted to the applicant to prove otherwise.

Even assuming that the claims are not anticipated by the reference, it would have been obvious to one of ordinary skill in the art to make the polymer having the claimed properties using the claimed process because it appears that the reference generically embrace the claimed subject matter and the person of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed subject matter and the subject matter of the prior art examples give rise to unexpected products.

9. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krutko et al. in view of Behr et al. (U. S. Patent 5,756,624).

The disclosure of Krutko's reference resided in § 7 is incorporated herein by reference.

With regard to the limitations of claims 22-24, Krutko does not disclose that the copolymer can be used in a method for grinding and dispersing pigments in the presence of an auxiliary agent, for textile- and leather-treatment and as cleaning agent.

Krutko discloses that the copolymers of methacrylic acid and terpenes are used as surface-active dispersing agents, coagulants and flocculants, soil structure formers and thickeners, and for the production of membranes, ionites, etc. (abstract)

Behr discloses that the copolymers may be used as tackifiers in adhesives, in paints and as binders for printing inks, **textile sizing agents**, builders and hardeners. Copolymers with esters to which a relatively long-chain alcohol radical is attached are suitable for hydrophobicization, for example for **hydrophobicizing shoe and clothing leather** (col. 3, lines 17-23).

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Both references are analogous art because they are from the same field of endeavor concerning new water-soluble terpene copolymers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Krutko's terpene copolymer for textile- and leather-treatment and as cleaning agent as taught by Behr with reasonable expectation of success.

### **Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Bernshteyn  
Patent Examiner  
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02/02/2007

  
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